



Experimental Inquiry

Assessing Questions

Assessing questions for teacher observation of a student's ability to use experimental inquiry.

Completeness of the student's use of the strategy of experimental inquiry

- Did the student provide a description of what she observed?
- Did the student provide an explanation of what she observed?
- Did the student make a clear prediction?
- Did the student plan and carry out an experiment or activity to test the prediction?
- Did the student reevaluate the original explanation and change it (if necessary) in light of the outcomes of the experiment or activity?

Accuracy and effectiveness of the student's thinking in the experimental inquiry task

- Was the phenomenon selected for study by the student important?
- Was the student's description of the phenomenon comprehensive and complete?
- Were the concepts, facts, and principles used to explain the phenomenon appropriate and accurate?
- To what extent did the prediction made by the student logically follow from the student's explanation?
- To what extent did the experiment truly test the prediction?
- To what extent did the explanation of the outcome of the experiment adequately relate to the student's initial explanation?

Adapted from McREL Institute